

Low Income Programs in the California Solar Initiative

April 29, 2009



California Solar Initiative

Background and History

- January 2007: Go Solar California campaign was launched
 - SB 1 was signed into law in 2006 to authorize the program
 - \$3.3 billion aimed at installing 3,000 MW of grid-installed solar
 - CSI, NSHP are part of Go Solar California
 - CSI covers all non-residential projects and existing residential projects in IOU territories -1,940 MW goal
 - NSHP covers new construction – 400 MW goal



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CSI Programs and Budget

The CSI program has 5 program areas:

Program Category	Budget (\$ Million)
General Market (GM) Program	\$1,897
SASH Program	\$108
MASH Program	\$108
Research, Development, Deployment and Demonstration (RD&D)	\$50
Solar Hot Water Pilot	\$2.6
Total CSI Budget	\$2,167

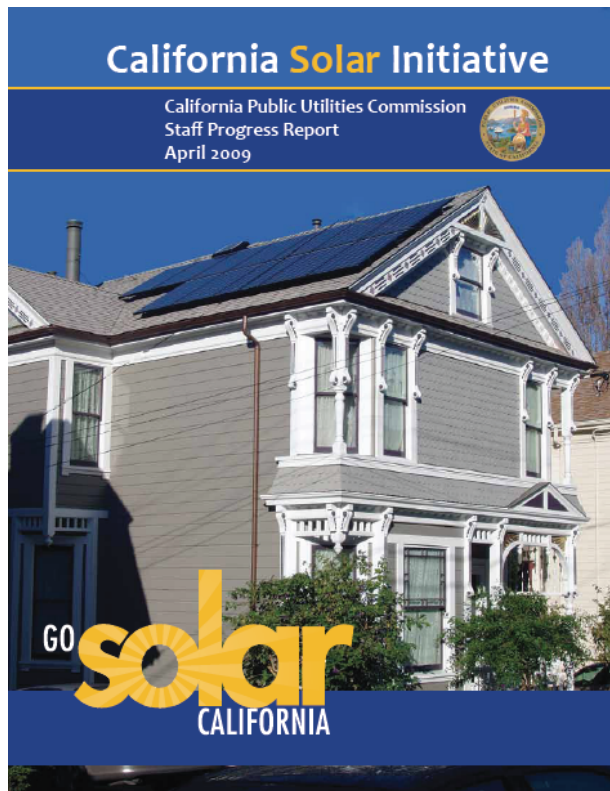


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CSI Progress to Date



- Total CSI installs in Q1 2009:
78 MW at 3,600 sites
- Total CSI installs since 2007:
211MW at 15,000 sites
- Combined total solar installs statewide:
Over 500 MW
- New applications in Q1 2009:
52 MW (broke a record)
- For more info, please see the CSI Progress Report, available:
<http://www.cpuc.ca.gov/PUC/energy/Solar/>



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Single-Family Affordable Solar Homes (SASH) Program Background

- November 2007: the SASH Program was adopted by the CPUC
- SASH offers up-front incentives which highly or fully subsidize solar PV systems on low-income, single-family homes
- GRID Alternatives was selected as Program Manager to administer the program in all three IOU territories



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SASH Incentive Structure

- Incentives range from \$4.75 to \$7.00 per watt depending on tax-liability and CARE-eligibility
- Households whose income is 50% of AMI or below are eligible for fully-subsidized 1kW PV systems



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Multifamily Affordable Solar Housing (MASH) Program Background

- October 2008: the MASH Program was adopted by the CPUC
- MASH Program Administrators
 - PG&E
 - SCE
 - The California Center for Sustainable Energy (CCSE) in SDG&E territory



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MASH Incentive Structure

- MASH offers two incentive tracks
 - Track 1 provides incentives of up-front incentives
 - \$3.30/watt for common areas
 - \$4.00/watt for tenant areas
 - Track 2 will provide higher incentives through a competitive RFP process
- Virtual Net Metering (VNM)
 - Will allow building owners to install a single-solar system for common and tenant areas and apply utility bill credits to building owner and tenants



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Eligibility

- All residences *must* meet the definition of “low-income residential housing” per PU Code 2852 to receive any SASH or MASH incentive
 - Includes housing financed with LIHTC, tax-exempt mortgage bonds, local, state or federal housing grants



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Where Are We Now

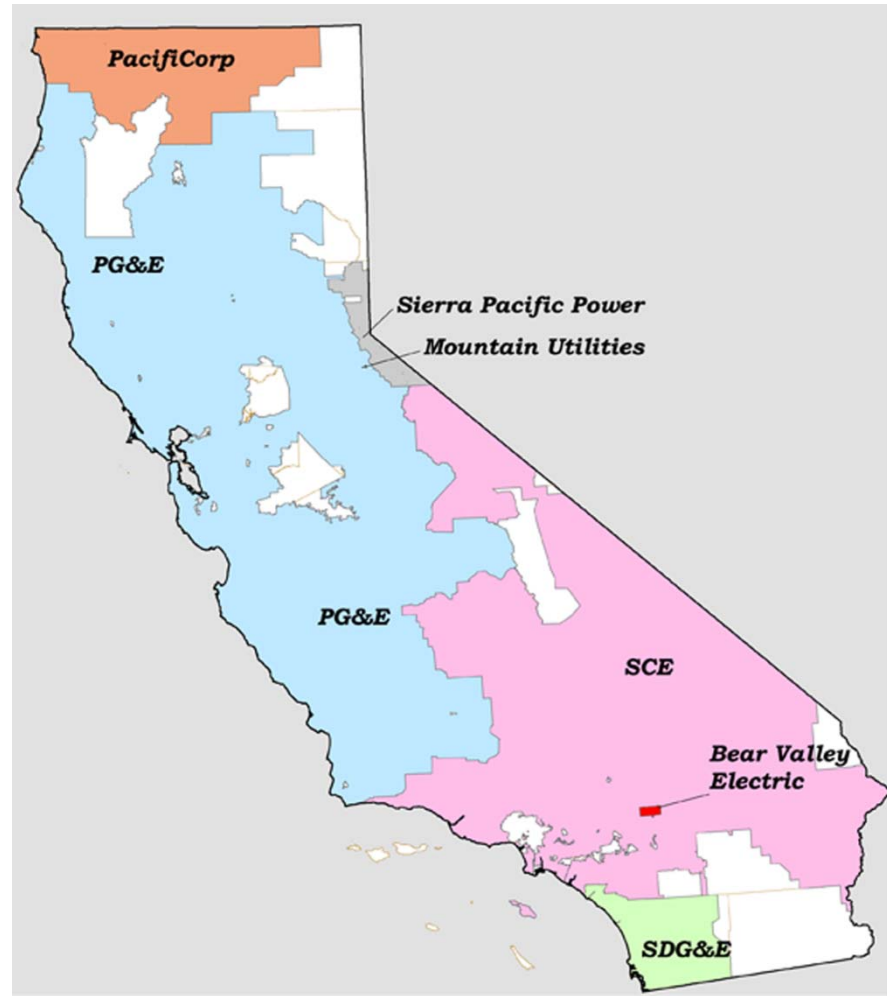
- Both SASH and MASH are accepting applications
- Pending approval from the CPUC, VNM and Track 2 incentives will be available in the MASH program



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**Program
Administrator**

**Pacific Gas &
Electric**



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MASH: Pacific Gas & Electric (PG&E)

Track 1 Budget Summary

As of 4/21/2009

Total Applications Received	15	
Reservations Granted		14
Applications in Queue		1
Incentive Budget		\$32,923,230
Requested Funds		\$2,614,634
Incentives Remaining*		\$30,308,596

*Assuming approval of requested funds



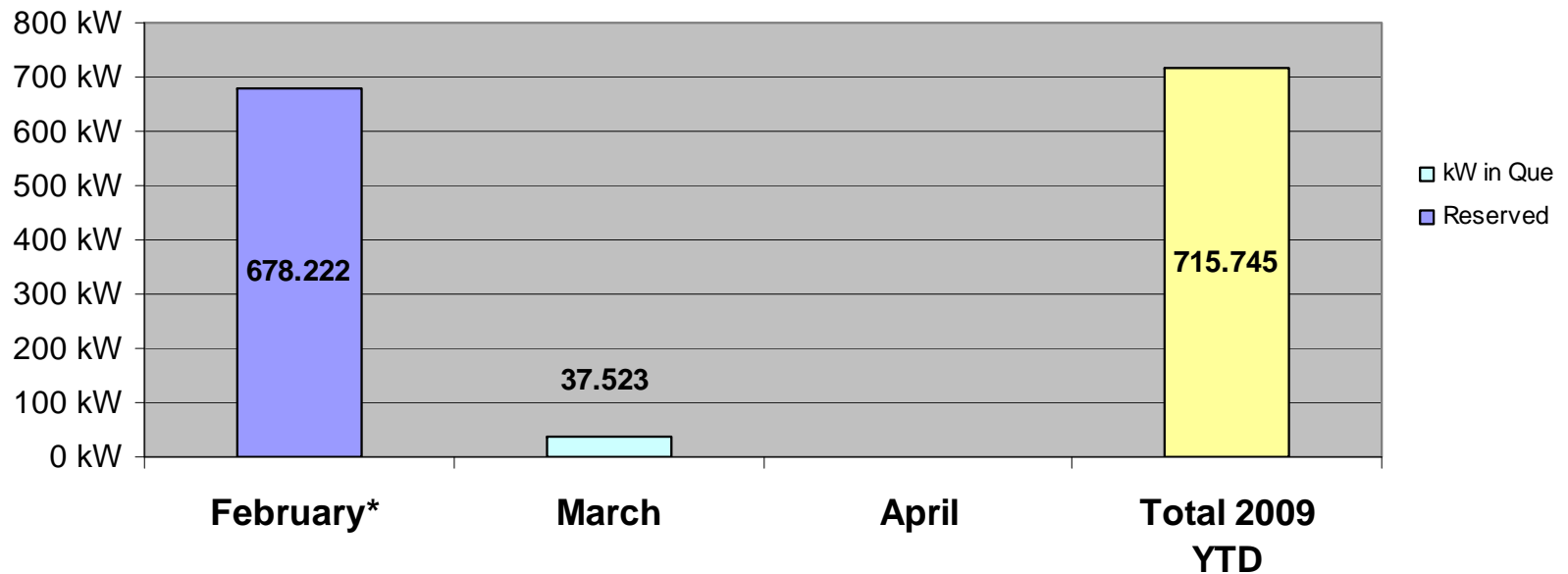
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Total MASH Projects (kW) Average System Size: 48 kW



*Note: MASH Track 1 launched on Feb. 17, 2009



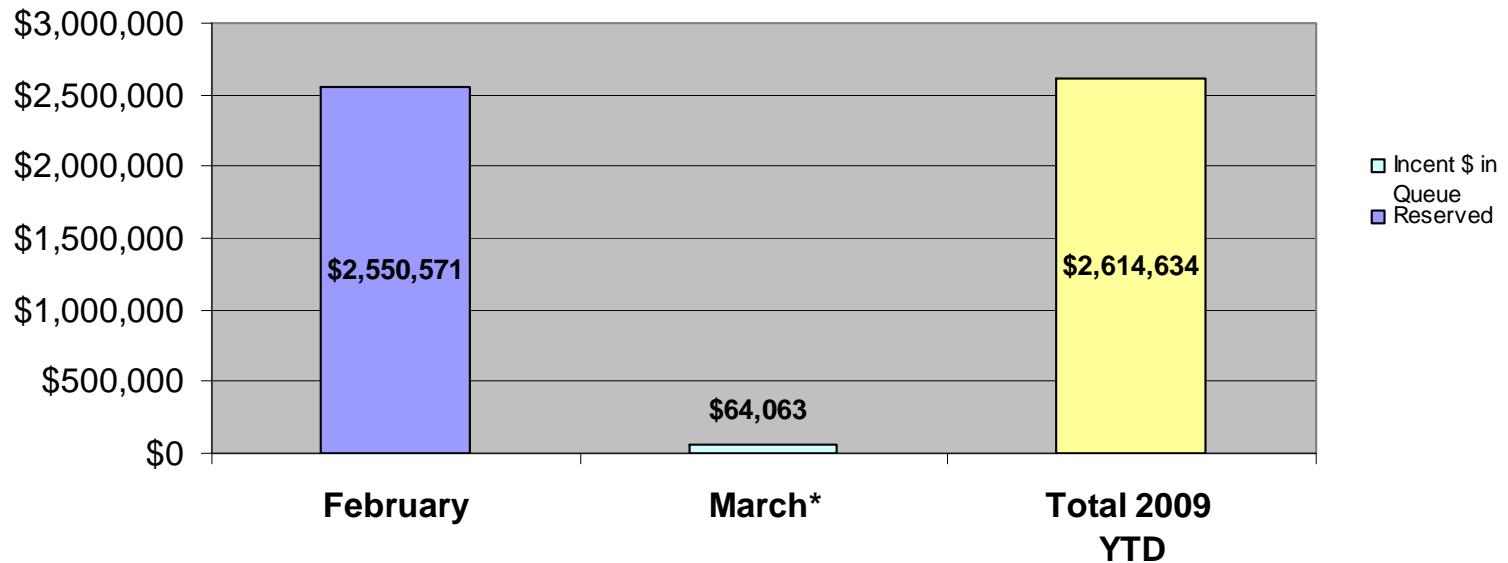
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PG&E

Total MASH Projects (\$) Average Reservation \$174,309*



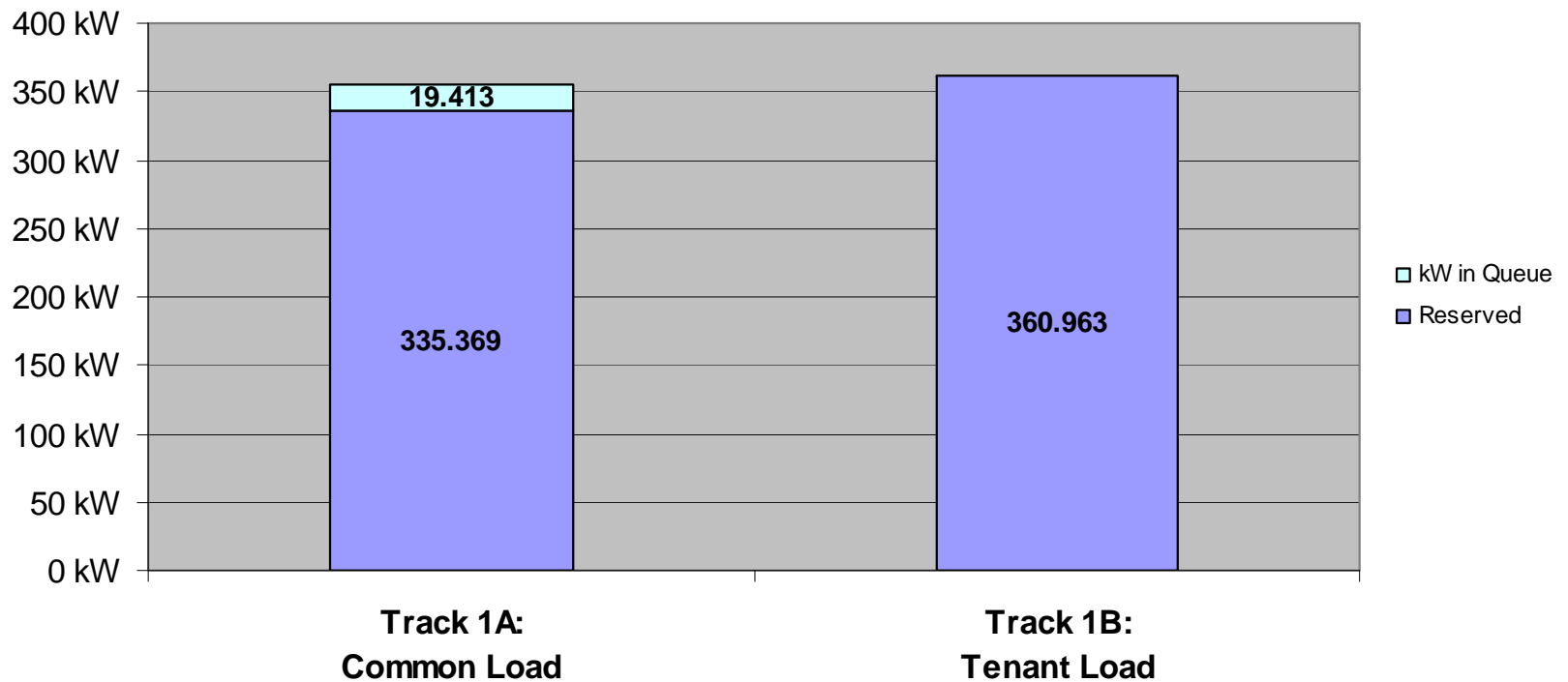
* Assuming projects in queue are reserved



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PG&E

Common vs. Tenant Load (kW)



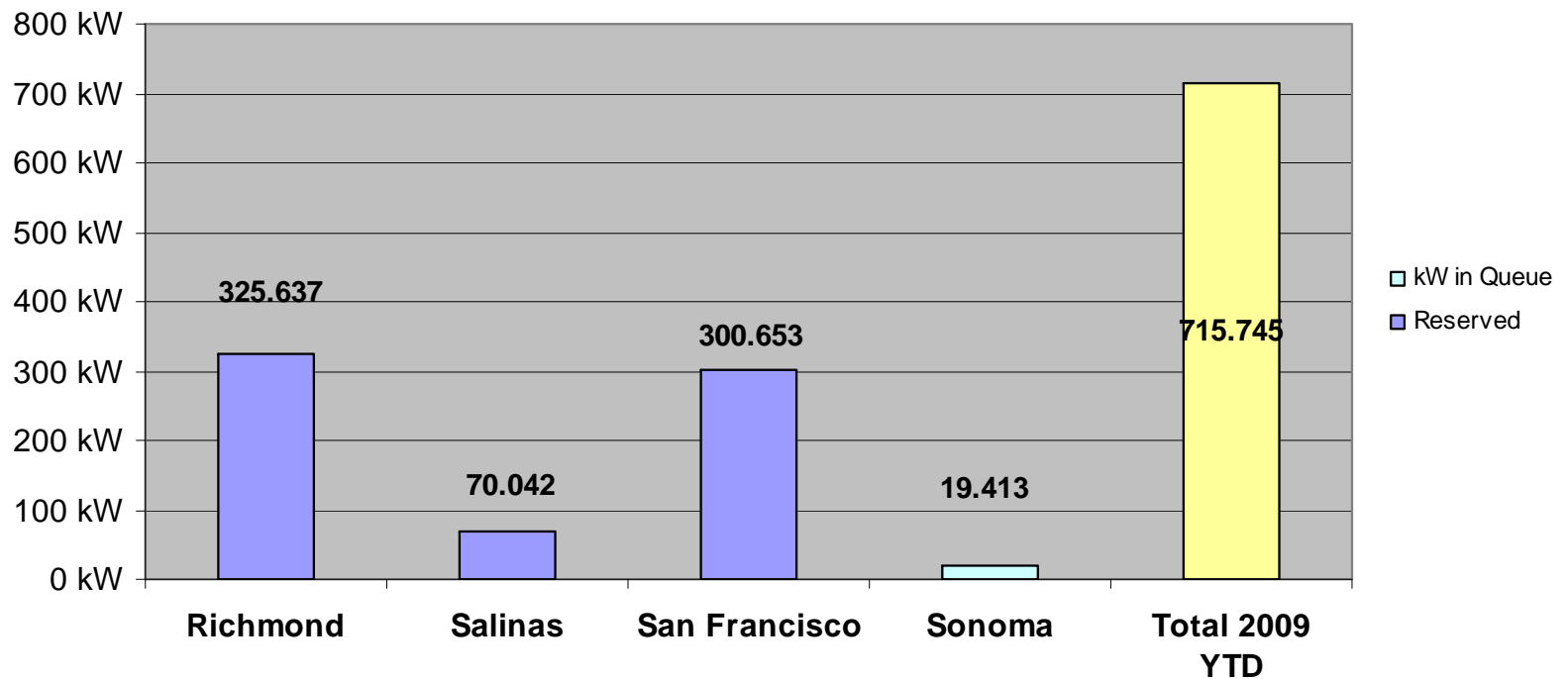
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PG&E

Initial Project Locations (kW)



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PG&E Territory – Marketing and Outreach

- MASH Fact Sheet
- Leveraging LIEE/CARE/MF Retrofit Outreach
- Monthly CSI Workshops – Pacific Energy Center (PEC)
- March 27, 2009: MASH Webinar
- May 4, 2009: Low Income Workshop (Pacific Energy Center)



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California **Solar** Initiative

Resources

Applications:

www.pge.com/lowincomesolar

Solar Classes:

www.pge.com/solareducation

EPBB Calculation Tool:

www.csi-epbb.com

California Energy Commission:

www.gosolarcalifornia.ca.gov

Energy Efficiency:

Low Income Energy Efficiency

www.pge.com/energypartners

Rebates for Multifamily Properties

www.pge.com/multifamily



California **Solar** Initiative

Contact Info

Caitlin S. Henig, Program Manager

E-mail: cjsv@pge.com

Phone: 415-973-1400

PG&E's Smarter Energy Line: 1-800-933-9555

To request marketing materials: solar@pge.com



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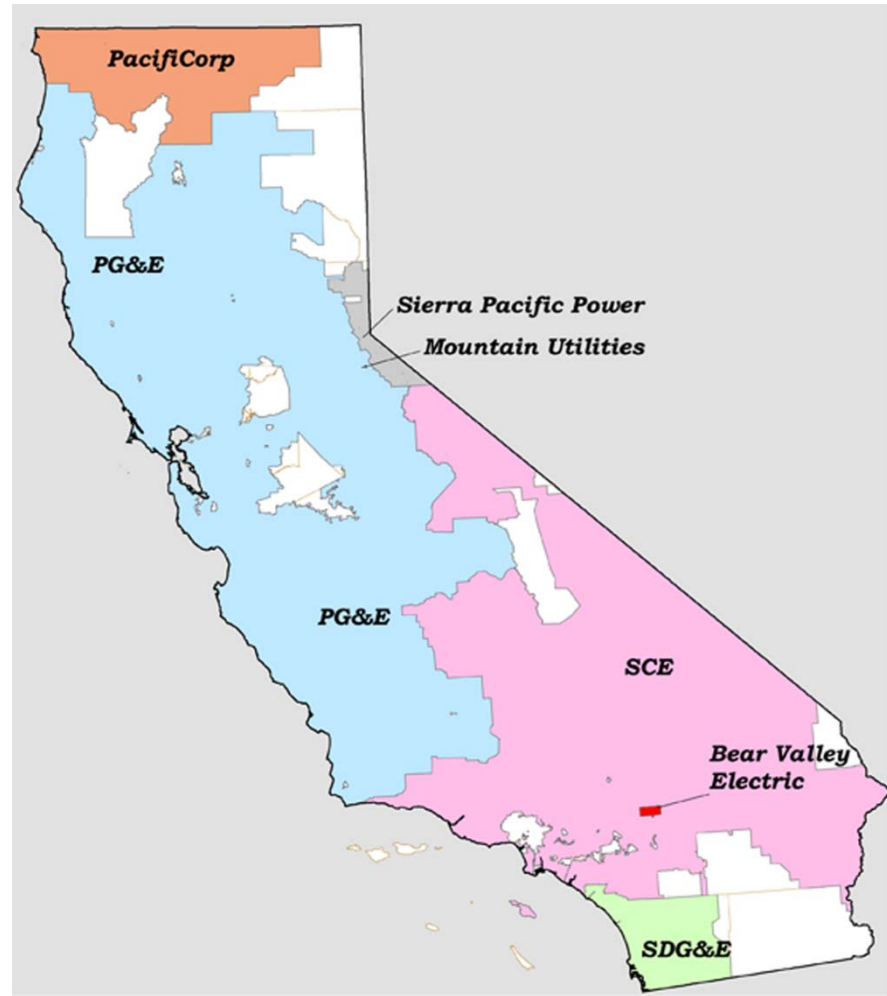
GRID Alternatives



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**Program
Administrator**

**Southern
California
Edison**



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MASH: Southern California Edison (SCE)

Track 1 Budget Summary

As of 4/21/2009

Total Applications Received	6	
Reservations Granted		6
Incentive Budget		\$34,656,032
Requested Funds		\$2,874,598
Incentives Remaining*	\$31,781,434	

*Assuming approval of requested funds



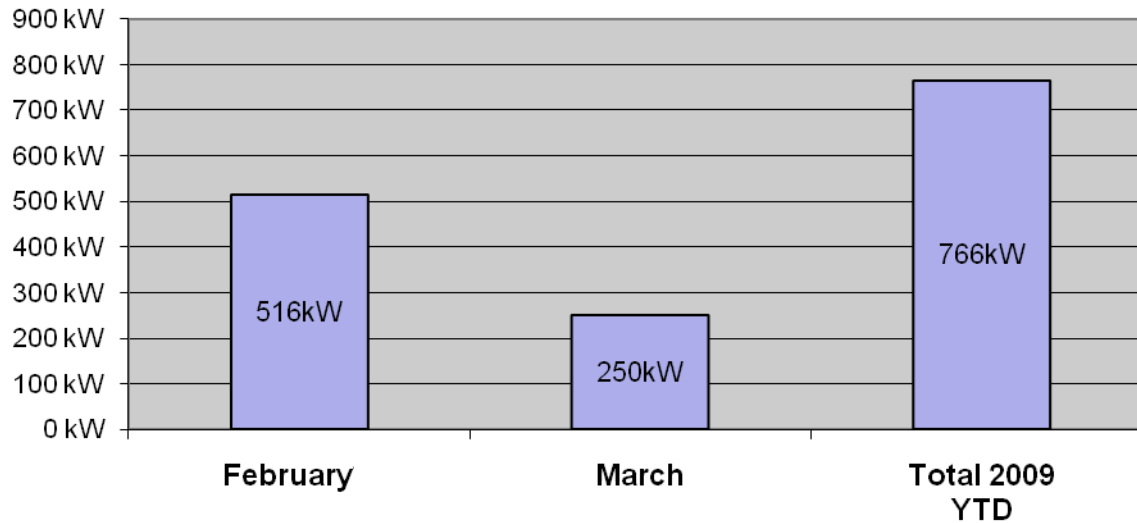
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SCE

Total MASH Projects (kW)*
Average System Size 127 kW



*As of 4/21/2009

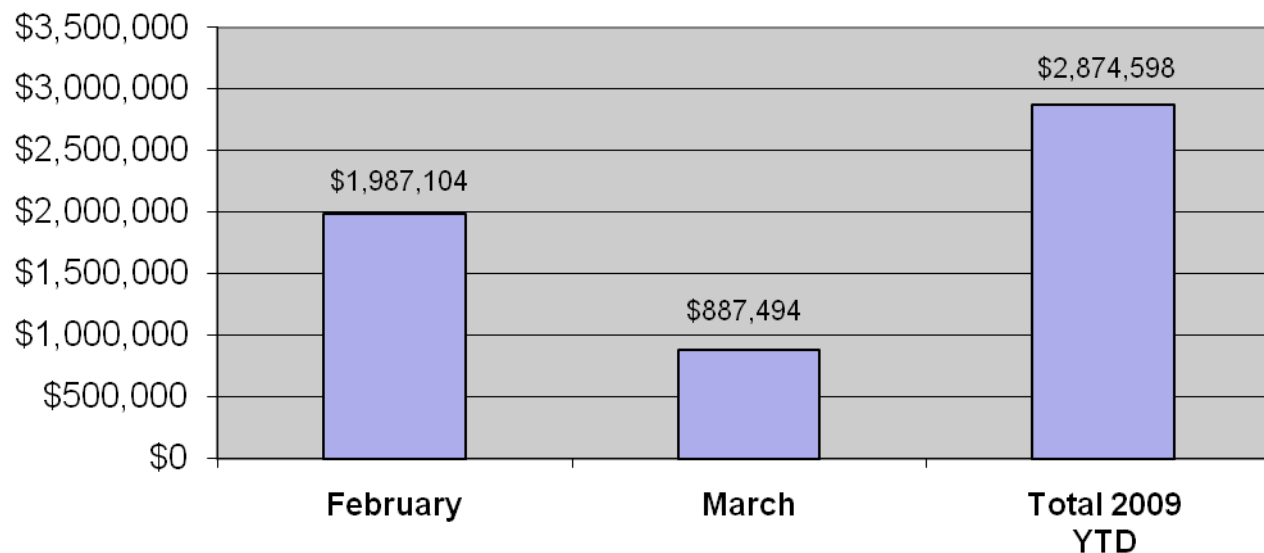


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Total MASH Projects (\$)*

Average Reservation \$479,100



*As of 4/21/2009

Note: MASH Track 1 launched on Feb. 17, 2009



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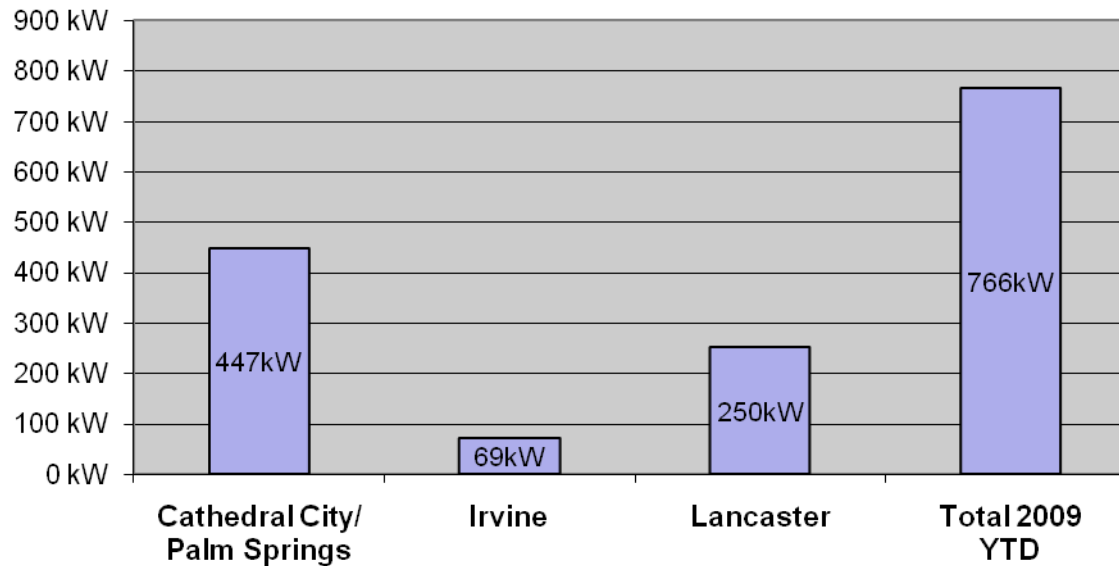


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SCE

Initial Project Locations (kW)

As of 4/21/2009



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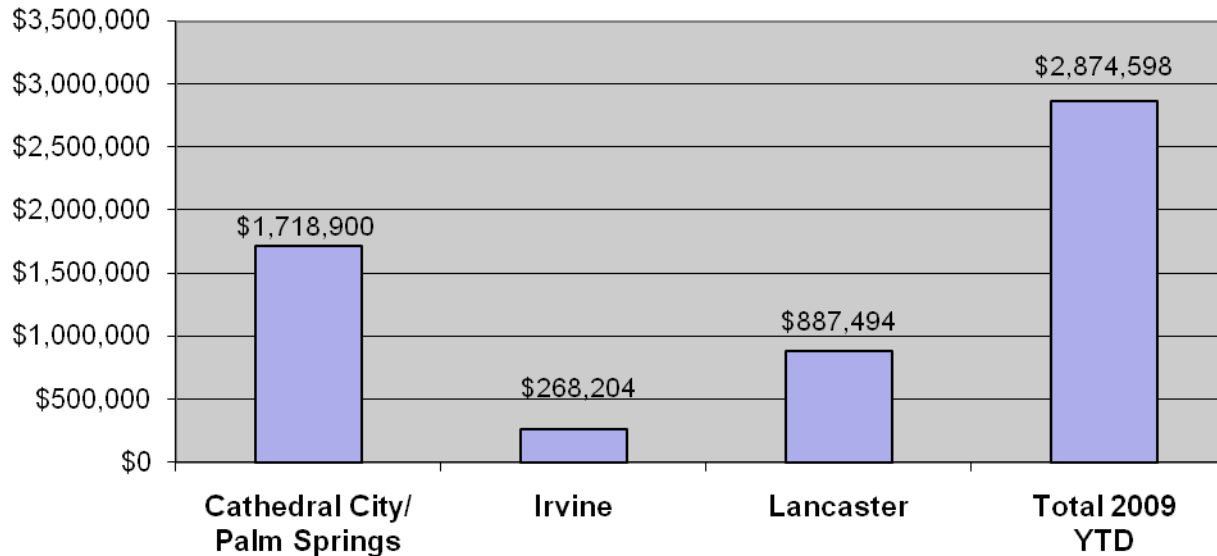


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Requested Program Dollars by Location (\$)

As of 4/21/2009



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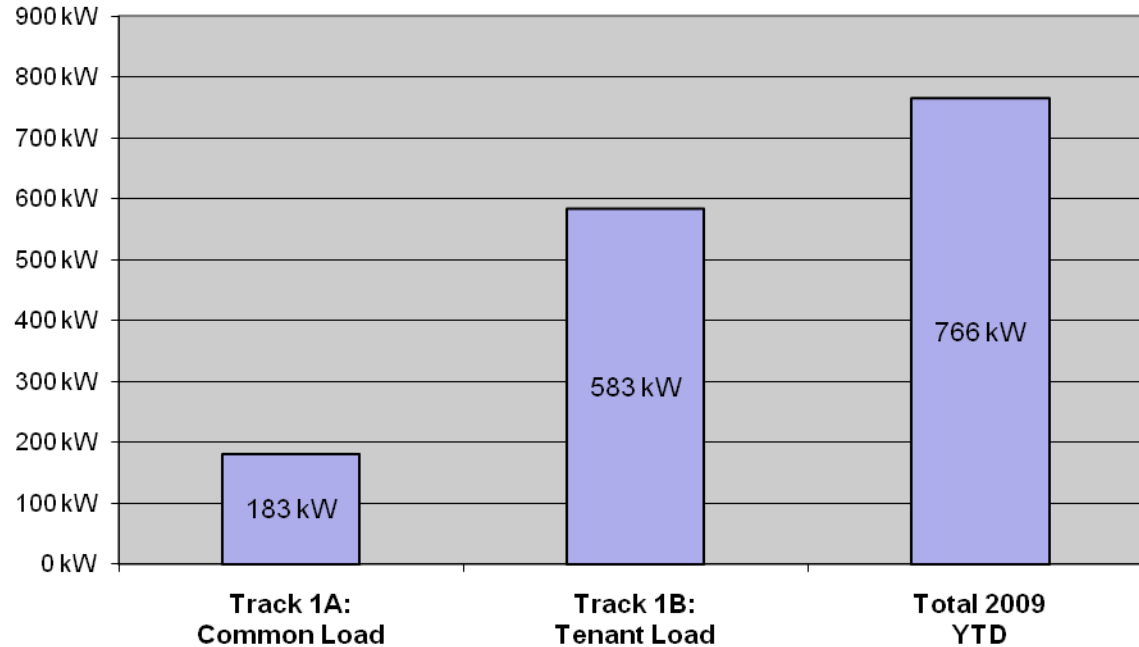


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SCE

Common vs. Tenant Load (kW)

As of 4/21/2009

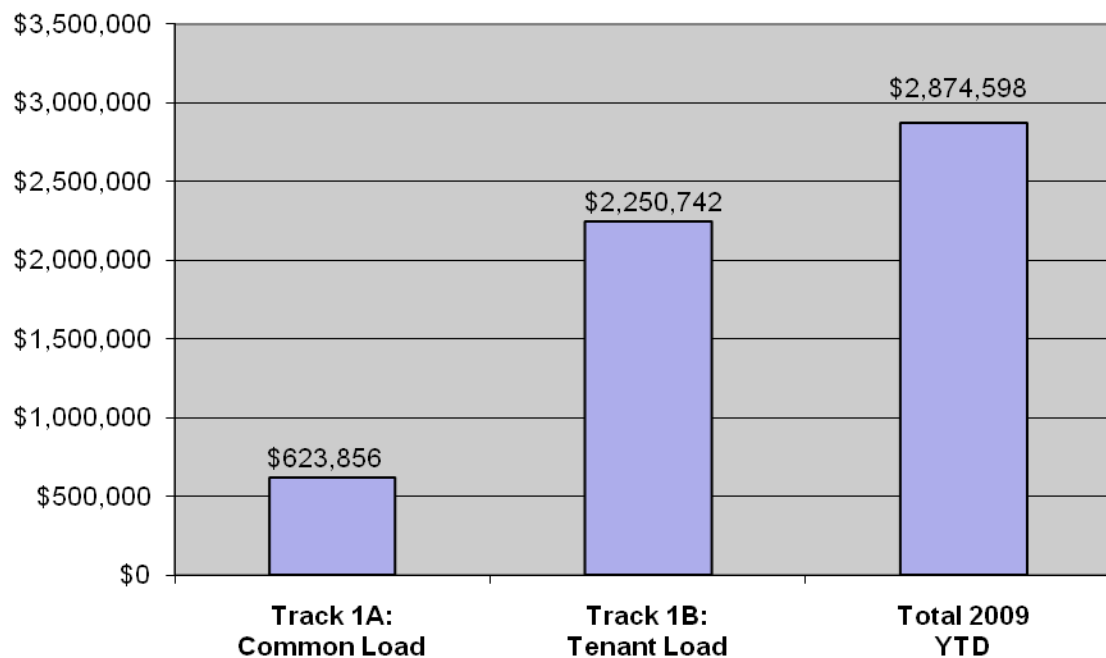


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Requested Program Dollars by Track (\$)

As of 4/21/2009



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SCE – Marketing and Outreach

- Network with regional affordable housing agencies, community based organizations and related professional groups
- Internal SCE network
 - Low Income Energy Efficiency department
 - City Partnerships
 - Local Public Affairs
 - Business Customer Division Account Representatives
- Workshops (in development)
- Conferences / Trade Shows
- Trade publications
- Website: www.gosolarcalifornia.org & www.sce.com/mash
- Promote MASH by leveraging existing CSI trainings
- Fact sheet distribution across SCE technology centers



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California **Solar** Initiative

Resources

MASH Application: www.sce.com/mash

California Energy Commission: www.gosolarcalifornia.ca.gov

EPBB Calculation Tool: www.csi-epbb.com

California State License Board: www.cslb.ca.gov

Solar Classes: www.sce.com/residential/rebates-savings/csi/Training/

Energy Efficiency:

Low Income Energy Efficiency: www.sce.com/residential/income-qualified

Rebates for Multifamily Properties: www.sce.com/multifamily



California **Solar** Initiative

Contact Info

Program Manager

Aileen Lagbao

E-mail: aileen.lagbao@sce.com

Phone: 626-633-3317

SCE's CSI Customer Service Hotline

E-mail: CSIGroup@sce.com

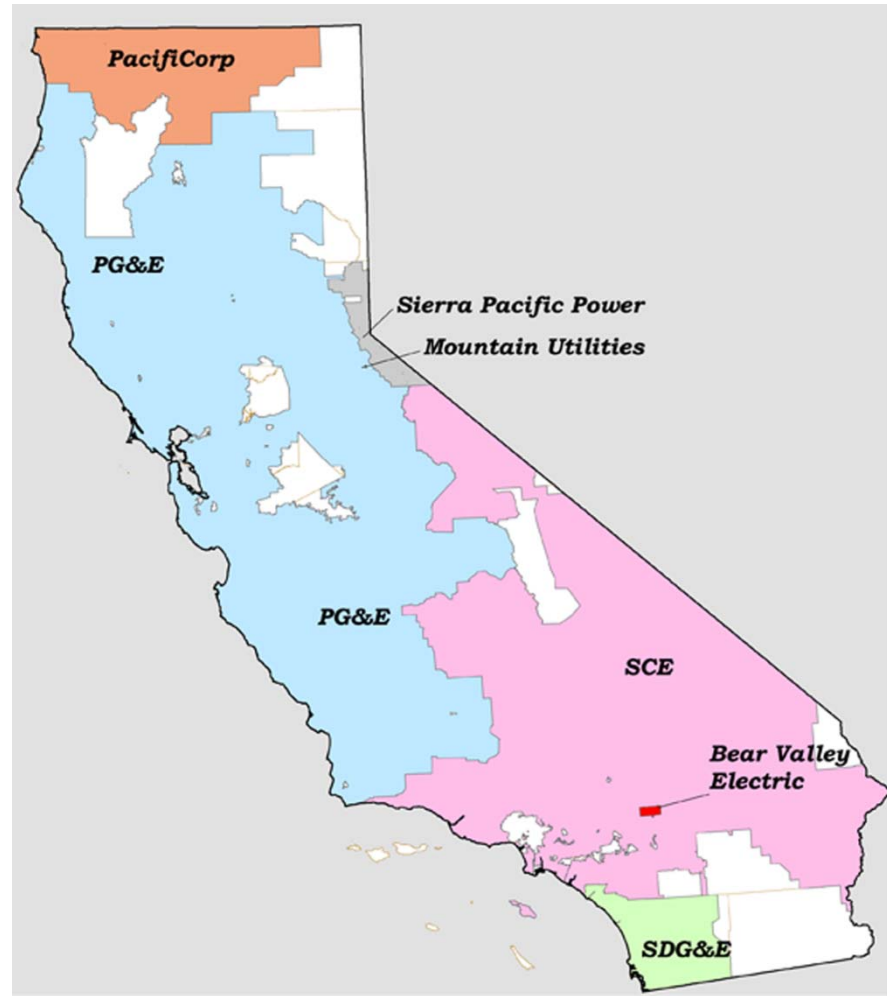
Phone: 1-866-584-7436



California **Solar** Initiative

**Program
Administrator**

**California
Center for
Sustainable
Energy**
(SDG&E Territory)



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California Solar Initiative

MASH: California Center for Sustainable Energy

Track 1 Budget Summary

As of 4/21/2009

Total Applications Received	0	
Incentive Budget		\$ 7,759,938
Requested Funds		\$0
Incentives Remaining	<u>\$ 7,759,938</u>	



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CCSE– Marketing and Outreach

- Workshops at CCSE
- Offsite Workshops at Developer and Gov't offices
- Collaboration with organizations with similar programs/goals
- MASH Fact Sheet
- Conference Participation



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Resources

CCSE MASH Website: <http://energycenter.org>

- Program Information
- Forms
- Workshops
- Vendor database
- Resource Guide (Coming soon)



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Contact Info

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GRID Alternatives



California **Solar** Initiative

SASH: Single-family Affordable Solar Homes

GRID Alternatives SASH Program Manager

Stan Greschner

Director – SASH Program

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SASH Program

GRID Alternatives

- Non-profit organization
- CA licensed C-10 and C-46 contractor
- A proven, non-profit installation model using professional installers, trained volunteers, and green-job trainees
- Well-established homeowner outreach, system training, and education
- Professional in-house engineering, design, and installation staff
- Strong network of low-income community partners



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California **Solar** Initiative

SASH Program

Overview & Benefits

- For those homeowners that qualify – Amazing opportunity for substantially subsidized solar!
- Free 1kW systems for families earning <50% AMI
- Significantly subsidized systems for families between 50-80% AMI
- Low-income homeowner protection – Positive Cash Flow from Day 1
- Includes energy efficiency
- Owner occupied existing homes
- Electric service provided by PG&E, SCE, or SDG&E



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SASH Program

Affordable Housing Requirement

The residence must be P.U. Code 2852-compliant, defined as:

- 1) A single family residence that is part of a two or more unit development project;
- 2) where 20% of the homes are sold to lower income households (as defined in Health and Safety Code Section 50079.5); and
- 3) those units targeted for lower-income households are subject to a deed restriction or covenant with a public entity – ensuring that the units will be available at an affordable housing cost (as defined in Health and Safety Code Section 50052.5).



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Economic Benefit to Homeowner

Typical Size of PV System	2.0 kW	
Retail Cost of PV System (\$9.50/W)	\$19,000	
GRID Alternatives Cost of PV System (no equipment markup, non-profit cost structure, volunteer and job trainee labor)	\$15,245	
	Non-CARE	CARE
SASH Rebate	\$9,500	-\$14,000
Net Cost to Homeowner	\$5,745	-\$1,245
Homeowners Year 1 Savings	\$500	-\$300
Estimated Savings Over System Lifetime (30 years)	\$22,600	-\$13,700



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SASH Program

Program Status

- SASH Program Handbook approved and became effective on March 26, 2009.
- First SASH installation completed April 24
- Moving forward: Build database of CA homes meeting SASH affordable housing criteria



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SASH Program

Marketing & Outreach

- Work with local jurisdictions, regional affordable housing agencies and developers, and non-profit organizations to identify qualifying homes.
- Partnered with California Housing Partnership Corporation (CHPC) to build statewide database of SASH-qualifying homes.



California **Solar** Initiative

SASH Program

GRID Alternatives

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